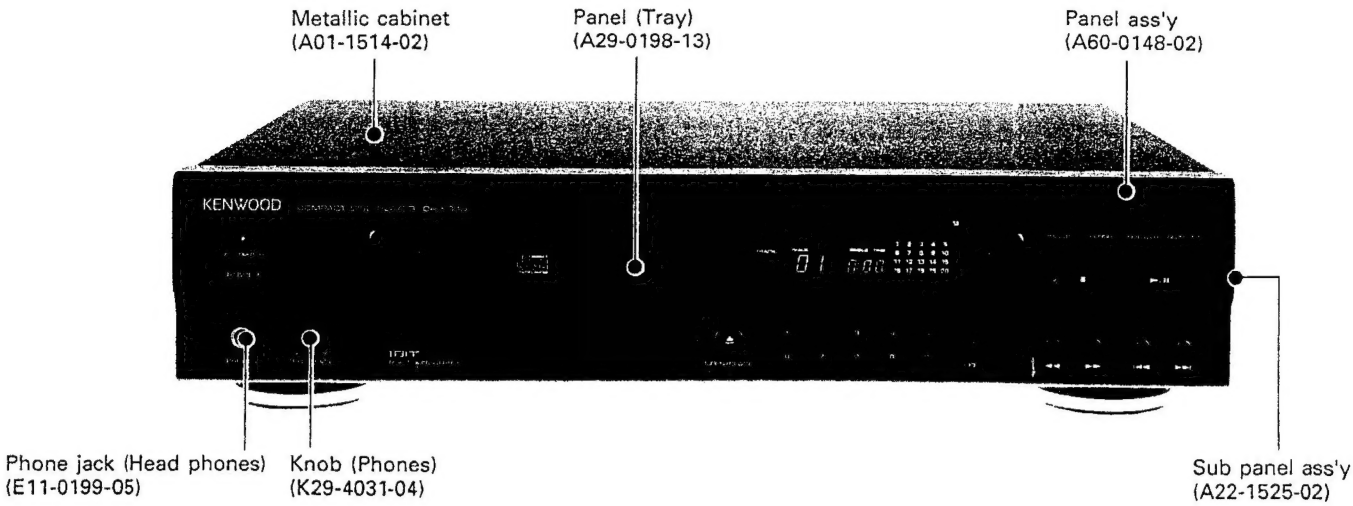
CD PLAYER

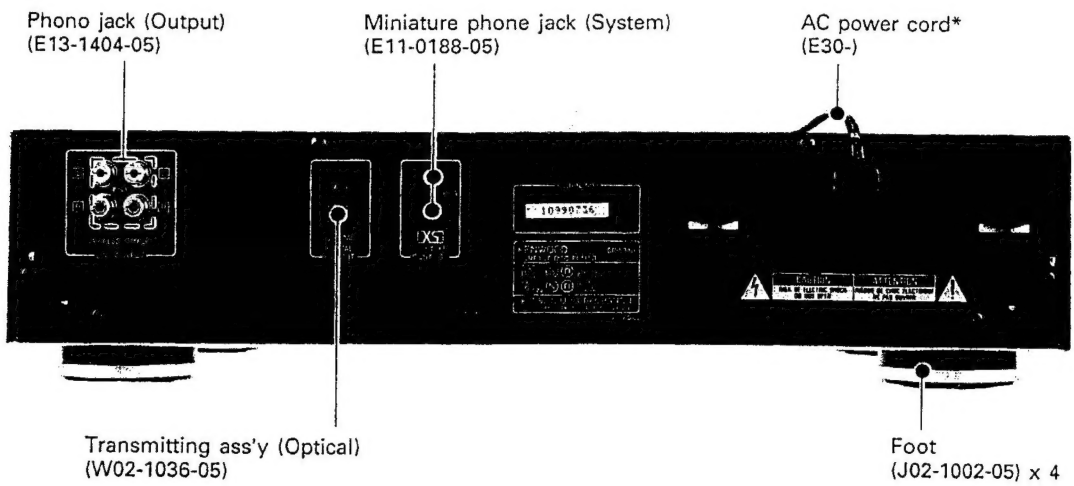
DP-5040

SERVICE MANUAL

KENWOOD

B51-4336-00(O) 2277





*** Refer to parts list on page 27.**

In complicance with Federal Regulations, following are reproductions of labels on, or inside the product relating to laser product safety.

KENWOOD-Corp. certifies this equipment conforms to DHHS Regulations No. 21 CFR 1040. 10, Chapter 1, Subchapter J.

DANGER : Laser radiation when open and interlock defeated. AVOID DIRECT EXPOSURE TO BEAM.

Note : Refer to DP-7040 service manual (B51-4337-00), if you want to know more information of Semiconductor description, Mechanism description and more.

DP-5040

CONTENTS/ACCESSORIES

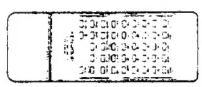
CONTENTS

ACCESSORIES 2
CONTROLS 3
REMOTE CONTROL 4
DISASSEMBLY FOR REPAIR 5
BLOCK DIAGRAM 9
CIRCUIT DESCRIPTION
1. Test Mode 10
2. Microprocessor : μPD75216ACW-C62 (IC6 : X32-2112-70) 12
ADJUSTMENT 14
PC BOARD (COMPONENT SIDE VIEW) 16, 19, 20
SCHEMATIC DIAGRAM ..... 17, 18, 21~24
EXPLODED VIEW (MECHANISM) 25
EXPLODED VIEW (UNIT) 26
PARTS LIST 27
SPECIFICATIONS ..... BACK COVER

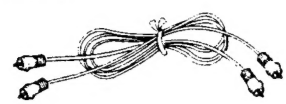
Note : Refer to DP-7040 service manual (B51-4337-00), if you want to know more information of Semiconductor description, Mechanism description and more.

ACCESSORIES

- Remote control unit 1
  (A70-0568-05)

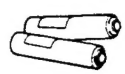


- Audio cord 1
  (E30-0505-05)

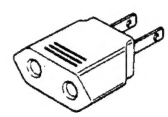


- System control cord 1
  (E30-0977-05)

- Batteries ("R6/AA") 2
  (–)

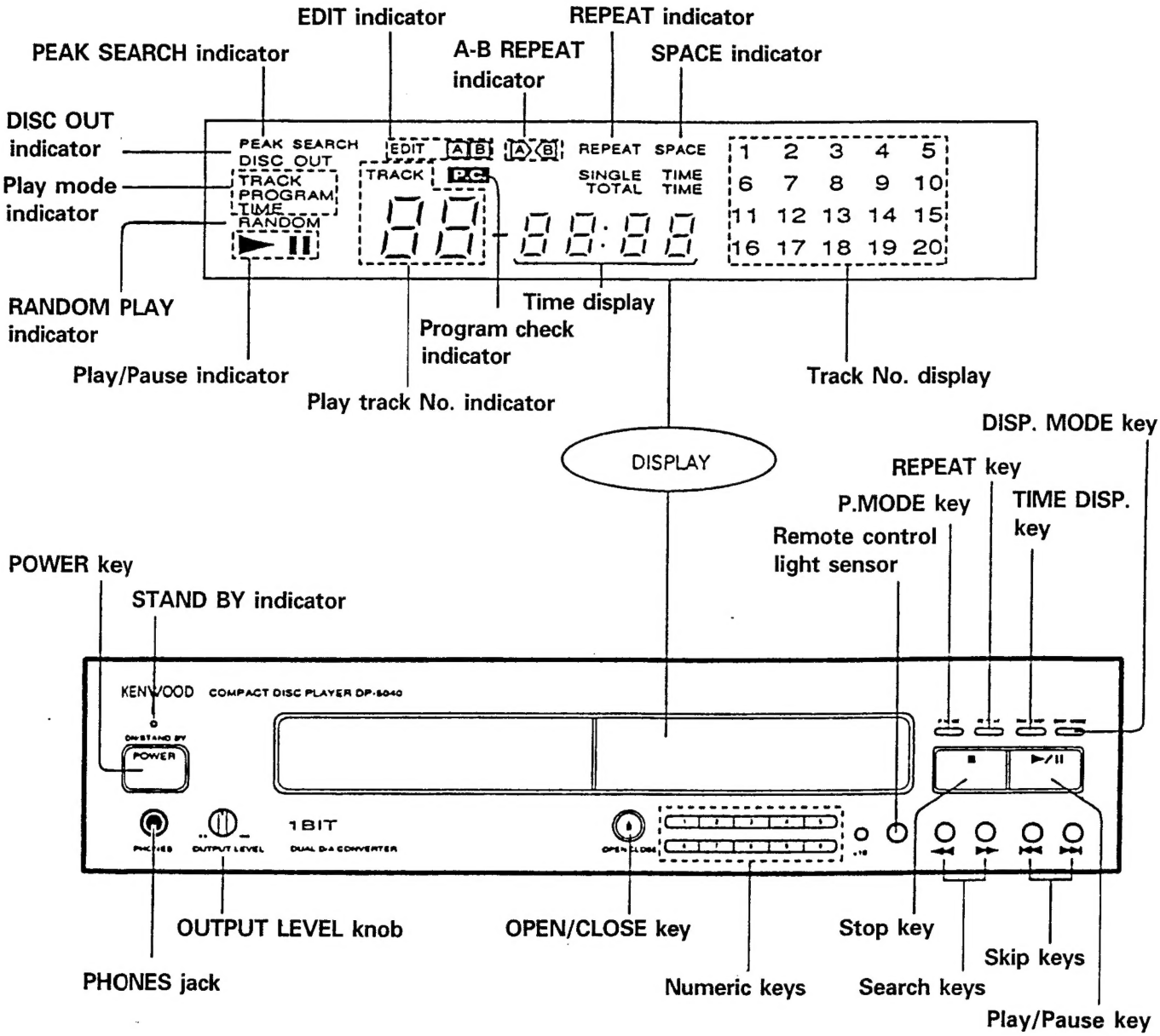


- AC plug adaptor 1
  (E03-0115-05)



(Except for some areas)
For the unit with a European AC plug in areas other than Europe.

CONTROLS



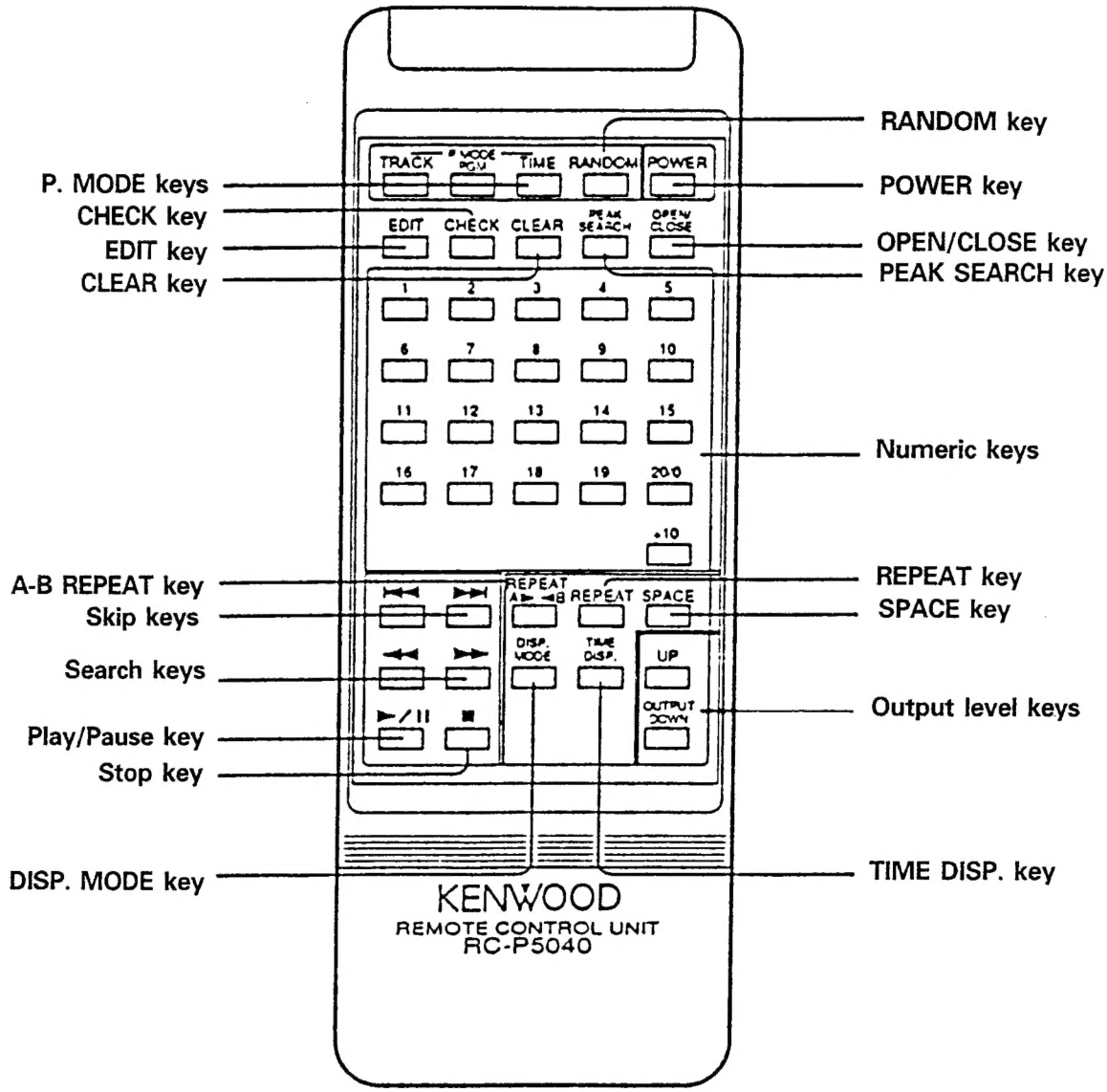
Caution

• Note related to transportation and movement

Carry out the operations listed below befor transporting or moving this unit.

1. After making sure that is no disc loaded in the unit, turn the POWER switch ON.
2. Wait for severalsecond to verify that display becomes as shown, and then turn the POWER switch back OFF.

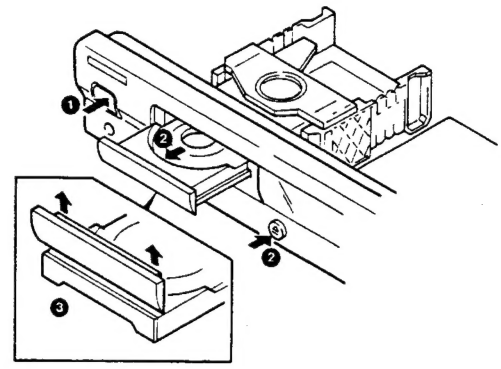
REMOTE CONTROLS



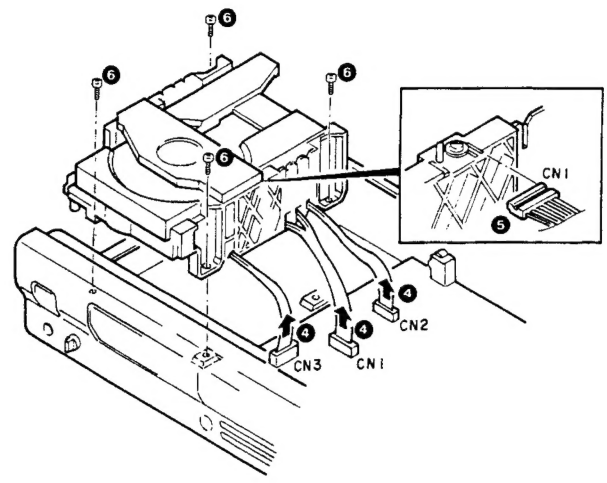
DISASSEMBLY FOR REPAIR

1. How to Disassemble Mechanism

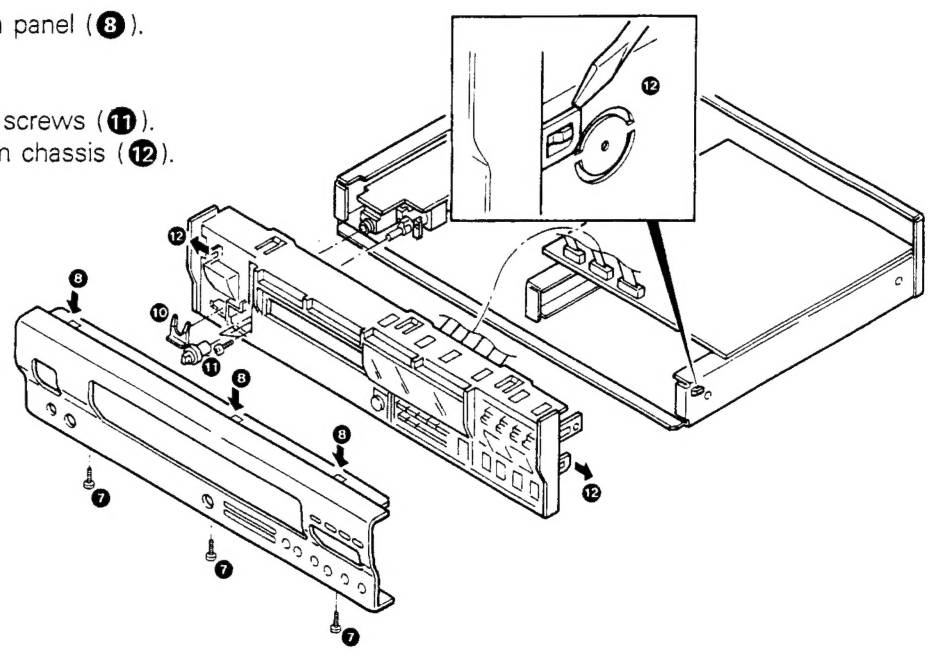
1. Push power switch to ON (❶).
2. Push open switch and slide the tray outwards (❷).
3. Remove the tray panel (❸).



4. Remove 3 connectors (❹).
5. Insert connector CN1 to LD short pin (❺).
6. Remove 4 screws (❻) and mechanism ass'y.

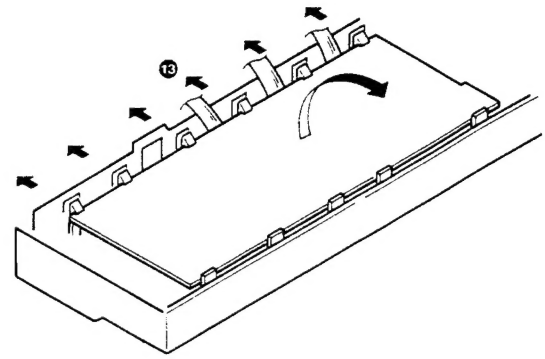


7. Remove 3 screws (❼).
8. Remove sub panel catches from panel (❽).
9. Remove 3 connectors (❾).
10. Remove phones stopper (❿).
11. Pull phones knob and remove 2 screws (⓫).
12. Remove sub panel catchers from chassis (⓬).

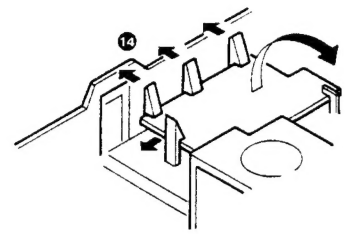


DISASSEMBLY FOR REPAIR

13. Remove pcb catchers and pcb (⓭).

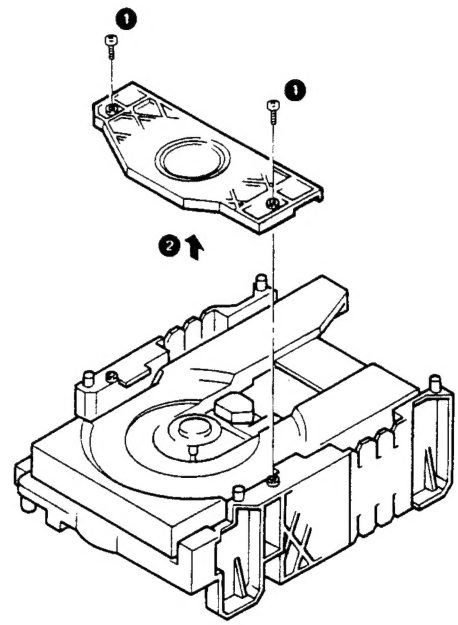


14. Remove pcb catchers and pcb (⓮).



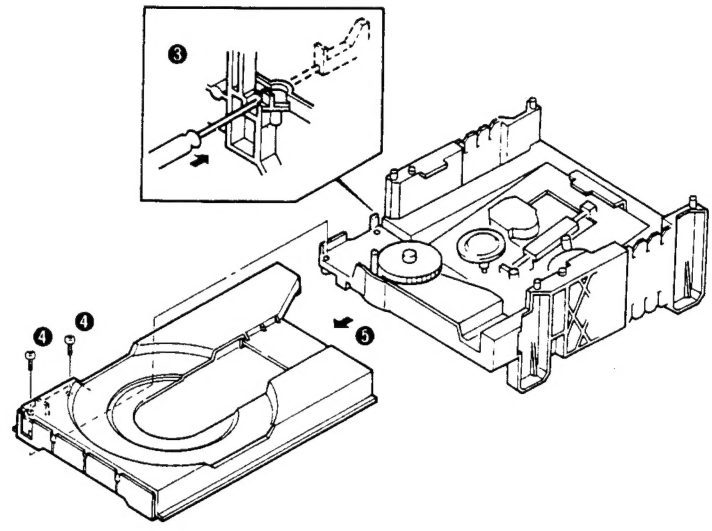
2. How to Remove Tray

1. Remove 2 screws (❶).
2. Remove clamper ass'y (❷).



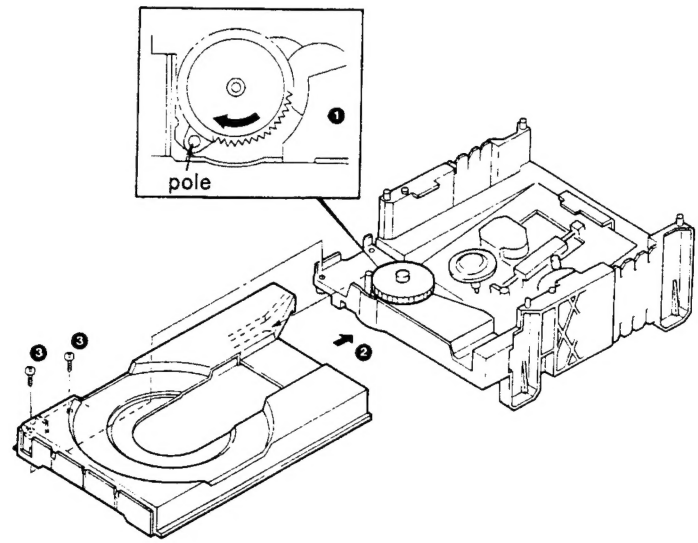
DISASSEMBLY FOR REPAIR

3. Insert the driver to left-side hole of mechanism ass'y and push the slider (❸).
4. Remove 2 screws (❹).
5. Tray can be pulled out (❺).



3. How to Mount Tray

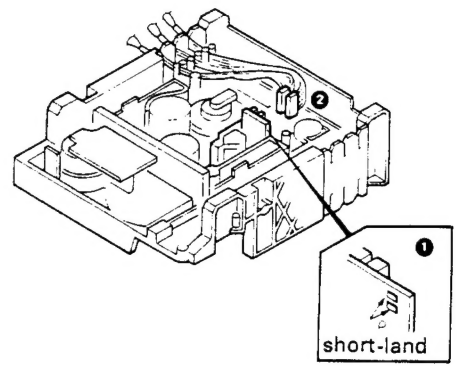
1. Set the pole to fully clockwise (❶).
2. Insert the tray to both-side guide on chassis (❷).
3. Fix 2 screws (❸).



4. How to Replace the Pickup

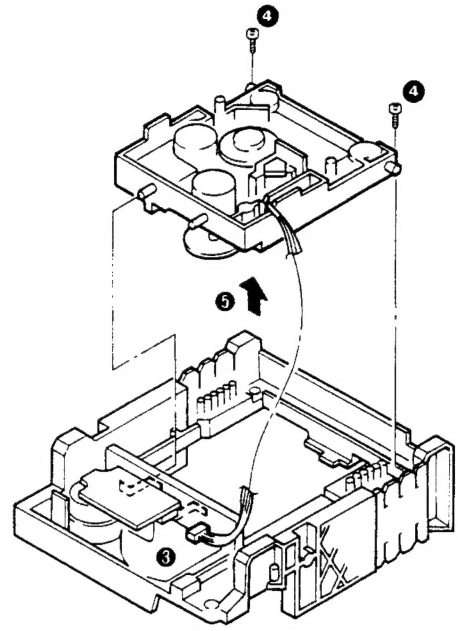
Short the short-land of the pickup before the following procedures (❶).

1. Remove 2 connectors (❷).

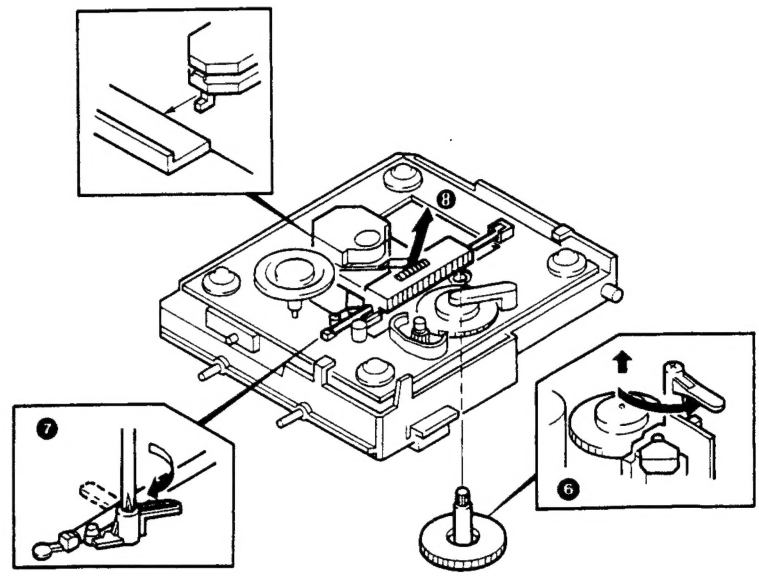


DISASSEMBLY FOR REPAIR

2. Remove the connector (❸).
3. Remove 2 screws (❹).
4. Remove the mechanism drive (MD) ass'y (❺).

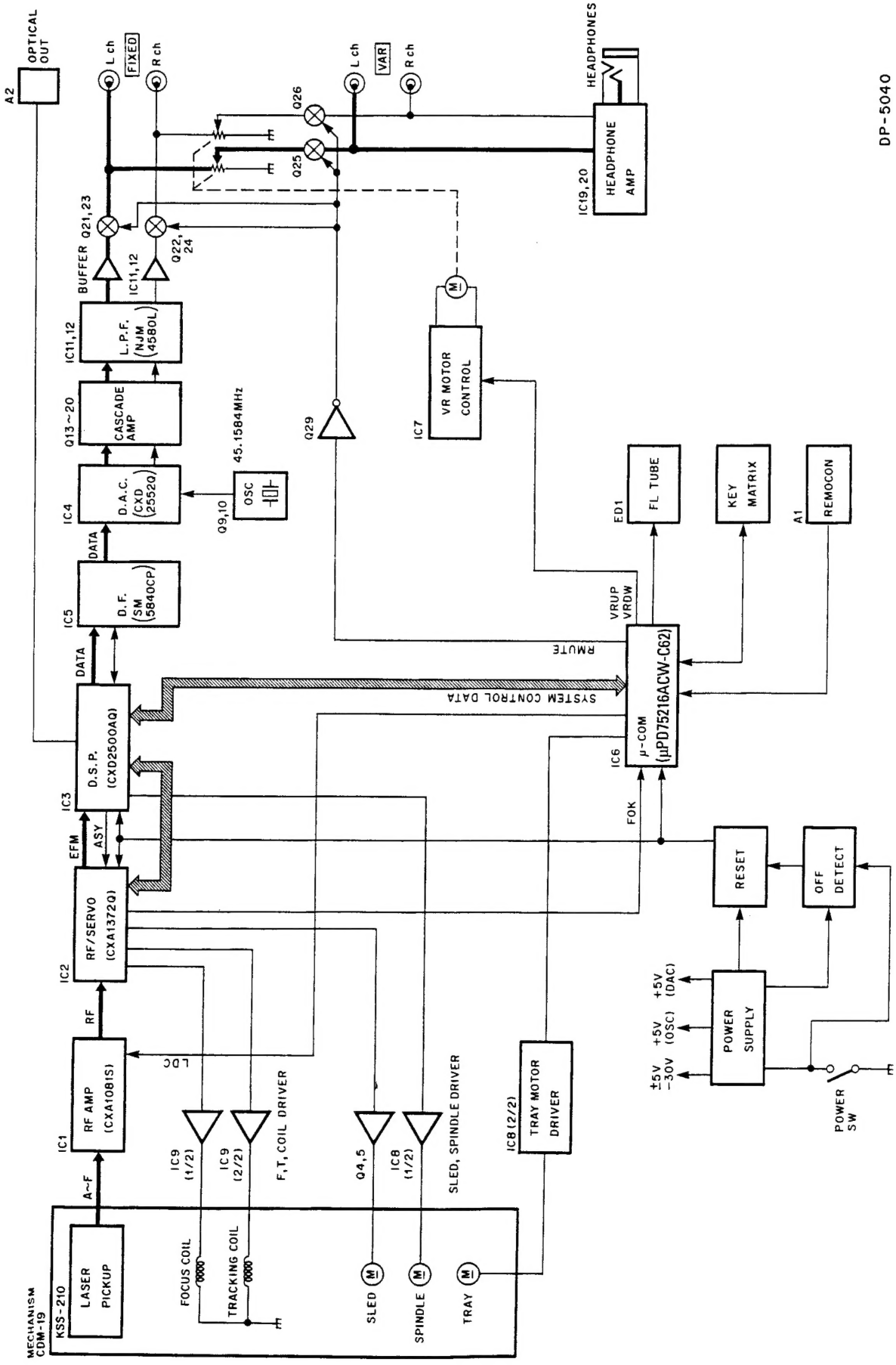


5. Remove stopper and gear (❻).
6. Remove rod stopper (❼).
7. Remove the pickup ass'y (❽).



Note : When mounting the pickup, in the reverse order of disassembly. Unsolder the short land after connecting the flexible wire.

BLOCK DIAGRAM

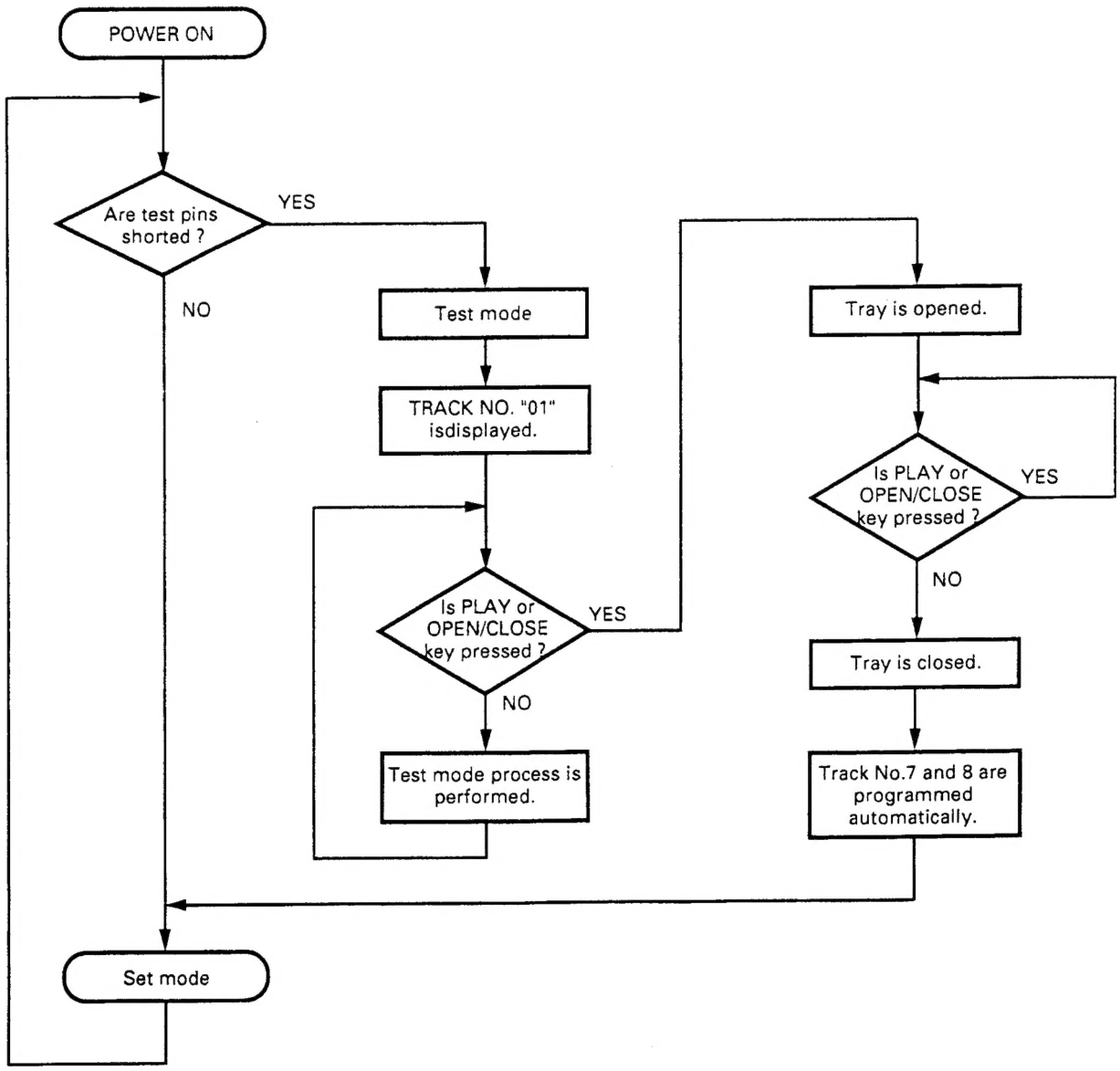


CIRCUIT DESCRIPTION

1. Test Mode

1-1. Setting the test mode

This microprocessor built this unit can be put to TEST MODE by just short-circuiting the test pins (#3 and #4).



CIRCUIT DESCRIPTION

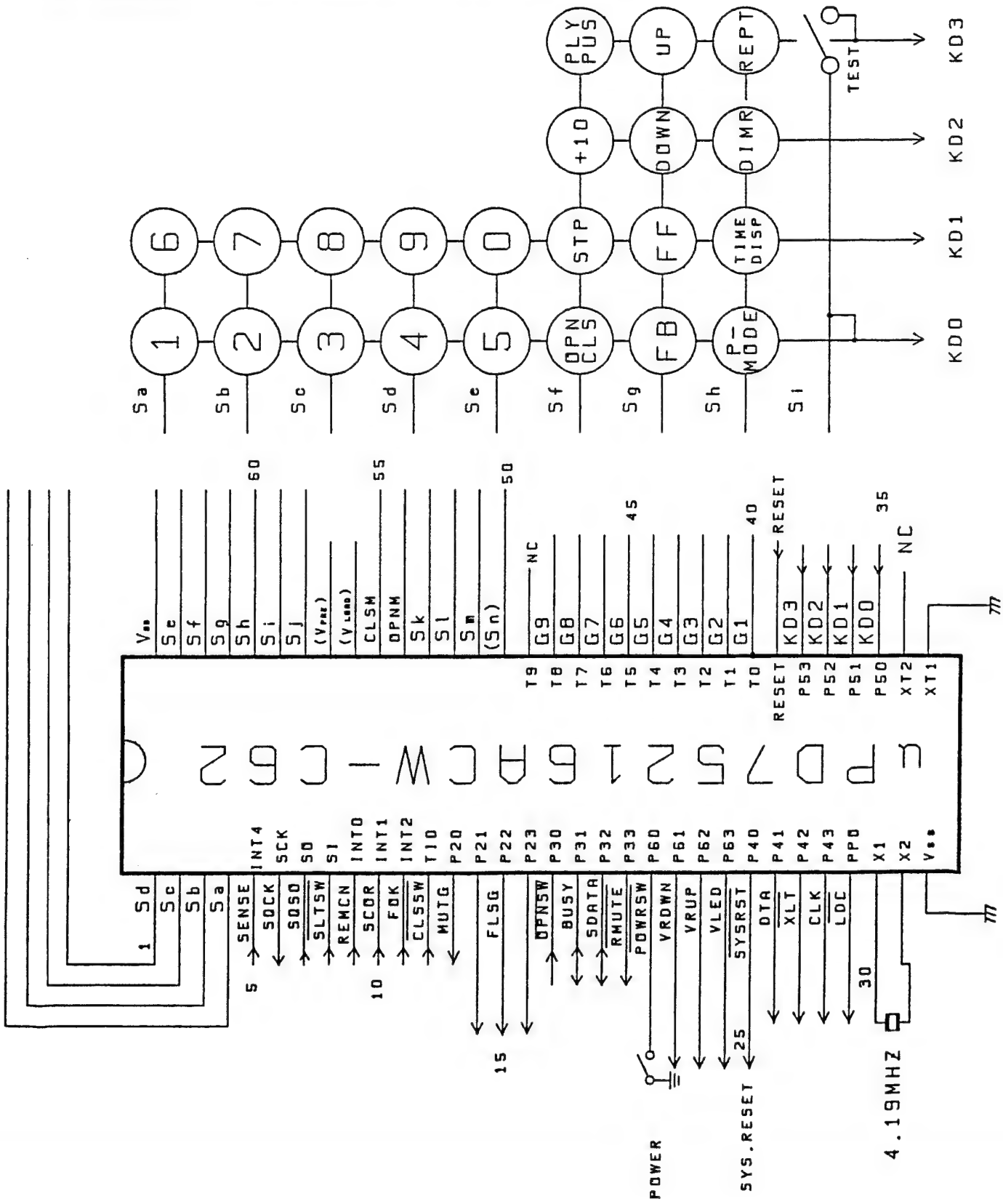
1-2. Key and functions valid in test mode

No.	Input key	Function	Track No. display
1	PLAY / PAUSE (▶/❚❚)	(1) Focusing servo ..... ON (2) Tracking servo ..... ON (3) Feed servo ..... ON	TRACK NO. 05 ↓ Displayed for a few seconds after completion (1), (2) and (3). ↓ Time ▶ (Play mark) and disc Track No. are displayed.
2	DISPLAY MODE	(1) Focusing servo ..... ON (2) Tracking servo ..... OFF (3) Feed servo ..... OFF Pause (❚❚) is blinked.	TRACK NO. 03
3	STOP (■)	(1) Focusing servo ..... OFF (2) Tracking servo ..... OFF (3) Feed servo ..... OFF	TRACK NO. 01
4	UP (▶▶|)	Turns all FL display lamps ON.	TRACK NO. 88
5	DOWN (|◀◀)	Turns all FL display lamps OFF. "TRACK NO." is lighted.	TRACK NO. 88
6	P.MODE	Track No. 7 and 8 are programmed and playbacked. The test mode is canceled.	–
7	OPEN / CLOSE (⏏)	When the tray is opened then closed in test mode. Track No. 7 and 8 are programmed and set is in STOP mode. The test mode is canceled.	–
8	FF (▶▶)	In the STOP mode, moves the pickup slightly toward the position of disc. The test mode is available in this condition.	–
9	FB (◀◀)	In the STOP mode, moves the pickup slightly toward the position of disc. If turn on start limit switch, the pickup stops to move.	–

CIRCUIT DESCRIPTION

2. Microprocessor : μPD75216ACW-C62 (IC6 : X32-2112-70)

2-1. Pin connection



CIRCUIT DESCRIPTION

2-2. Pin function

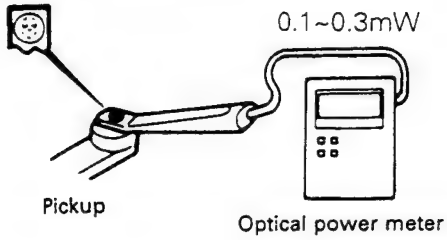
Pin No.	Pin name	I/O	Function
1~4	Sd~Sa	O	FL segment control terminals (also used for key scan signal).
5	SENSE	I	Signal detection terminal for SENSE signal from processor and servo ICs.
6	SQCK	O	Q data read clock output terminal.
7	SQSO	I	Q data input terminal.
8	$\overline{\text{SLTSW}}$	I	Start limit switch (L : sw on).
9	REMCN	I	Remote control input terminal.
10	SCOR	I	Sub-code frame sync detection signal input terminal.
11	FOK	I	Input terminal for FOK signal from RF amp (focus OK : "H").
12	$\overline{\text{CLSSW}}$	I	Tray close-switch (L : sw on).
13	MUTG	O	Digital mute signal to CXD2500 (H : mute on).
14	–	O	Not used.
15	FLSG	O	Display control (H : display off).
16	–	O	Not used.
17	$\overline{\text{OPNSW}}$	O	Tray open switch (L : tray open).
18	BUSY	I/O	Busy signal input/output terminal.
19	SDATA	I/O	Serial data signal input/output terminal.
20	$\overline{\text{RMUTE}}$	O	Realy mute signal (L : mute on).
21	$\overline{\text{POWRSW}}$	–	Power key switch input terminal (L : key is pressed).
22	VRDWN	O	Headphone volume control (H : vol. down).
23	VRUP	O	Headphone volume control (H : vol. down).
24	VLED	O	Headphone volume control (LED blink : volume knob is turning).
25	$\overline{\text{SYSRST}}$	O	System reset signal (L : reset).
26	DTA	O	Data output terminal to CXD2500.
27	$\overline{\text{XLT}}$	O	Data latch output terminal to CXD2500.
28	CLK	O	Clock output terminal to send data to CXD2500.
29	$\overline{\text{LDC}}$	O	Laser diode control (L : on, H : off).
30	X1	I	Input terminal of system clock (4.19MHz).
31	X2	I	Input terminal of system clock (4.19MHz).
32	V_{SS}	–	GND.
33	XT1	–	Vss.
34	XT2	–	Open.
35~38	KD0~KD3	I	Key data input terminal.
39	RESET	I	Reset input terminal (active "L").
40~48	G1~9	O	FL digit control terminals.
49	T9	–	N.C.
50	Sn	O	Not used.
51~53	Sm~Sk	O	FL segments control terminals.
54	OPNM	O	Output terminal of tray-open signal.
55	CLSM	O	Output terminal of tray-close signal.
56	V_{LOAD}	–	FL driver power supply.
57	V_{PRE}	–	FL pre-driver power supply.
58~63	Sj~Se	O	FL segment control terminals.
64	V_{DD}	–	Power supply.

ADJUSTMENT

No.	ITEM	INPUT SETTING	OUTPUT SETTING	PLAYER SETTING	ALIGNMENT POINT	ALIGN FOR	FIG
1	LASER POWER	–	Set the sesor section of the optical power meter on the pickup lens.	Short-circuit pins TEST and turn the power on to enter the test mode. Press the "DISPLAY MODE" key to check that the display is "03".	-	On the power from 0.1 to 0.3mW, when the diffraction grating is correctly aligned with the RF level of 1.0Vp-p or more	(a)
2	TRACKING ERROR BALANCE	Test disc Type 4	Connect an oscilloscope as follows. CH1: RF (CN4-1) CH2: TE (CN4-6)	Load disc and set to test mode. Confirm the display is "03".	TE BALANCE VR1	Symmetry between upper and lower or DC=0±0.05V	(c)
3	FOCUS ERROR BALANCE	Test disc Type 4	Connect an oscilloscope as follows. CH1: RF(CN4-1) CH2: TE(CN4-6)	Press the PLAY key. Confirm that the display is " 05 ".	FE BALANCE VR2	Optimum eye pattern	(d)
4	FOCUS GAIN	Test disc Type 4 Apply signal of 1.0kHz,100mVrms to CN4 pin 2-3.	Connect a LPF to CN4 pin 2-3 to which connect an oscilloscope or AC voltmeters.	Press the PLAY key. Confirm that the display is " 05 ".	FOCUS GAIN VR3	Two VTVMs should read the same value.	(e)
5	TRACKING GAIN	Test disc Type 4 Apply signal of 1.0kHz,100mVrms to CN4 pin 5-6.	Connect a LPF to CN4 pin 5-6 to which connect an oscilloscope or AC voltmeters.	Press the PLAY key. Confirm that the display is " 05 ".	TRACKING GAIN VR4	Two VTVMs should read the same value.	(e)

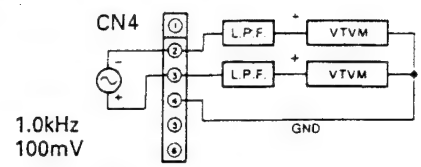
(Note) Type 4 disc: SONY YDS-18 Test Disc or equivalent.
LPF: Around 47kohms+390pF or so.
Step 1~5 are in Test Mode.

(a) Laser Power

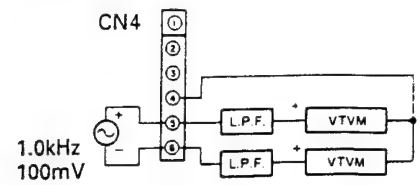


(e) Focus Gain and Tracking Gain Adj.

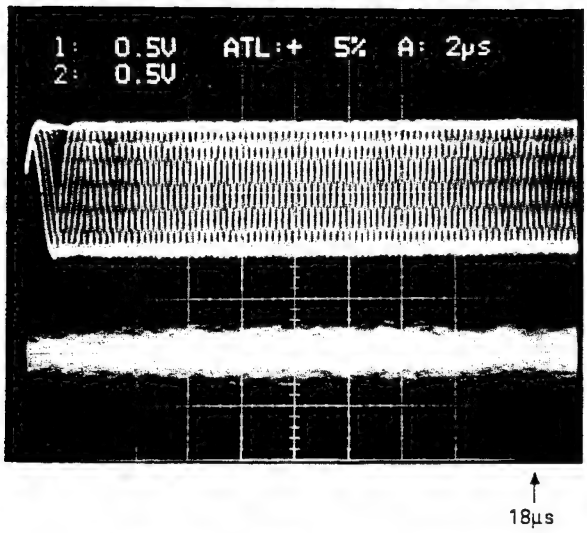
Focus gain Adj.



Tracking gain Adj.



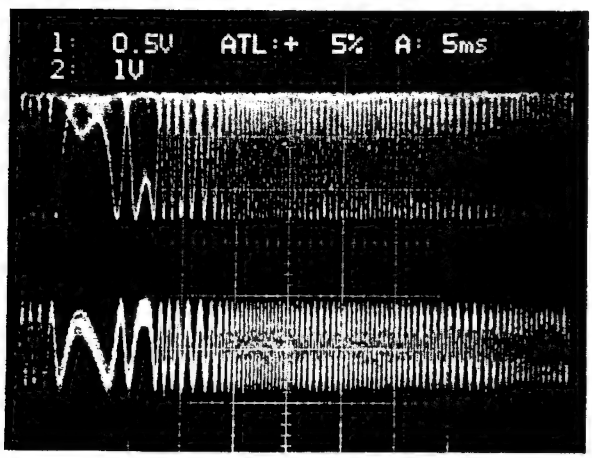
ADJUSTMENT



CH1 : AC couple
RF signal

CH2 : DC couple
TE siganl

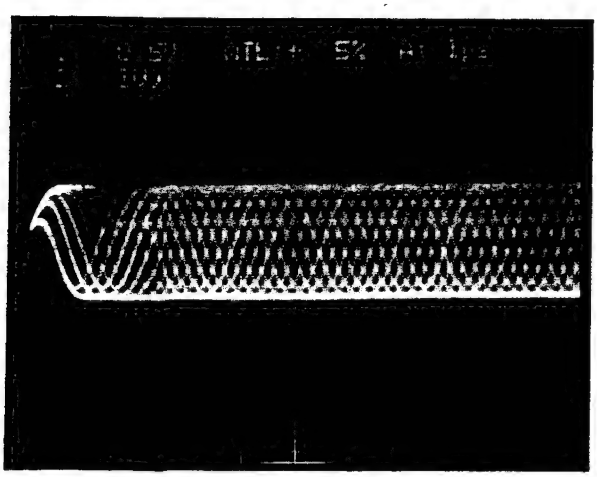
- RFsignal and E.Spot signal in test mode (PLAY).
- If the diffraction grating has been adjusted properly, the influence of triggering is observed on the E.Spot waveform of appox. 18µs after RF signal, in the form of a projection.



CH1 : AC couple
RF signal

CH2 : DC couple
TE signal

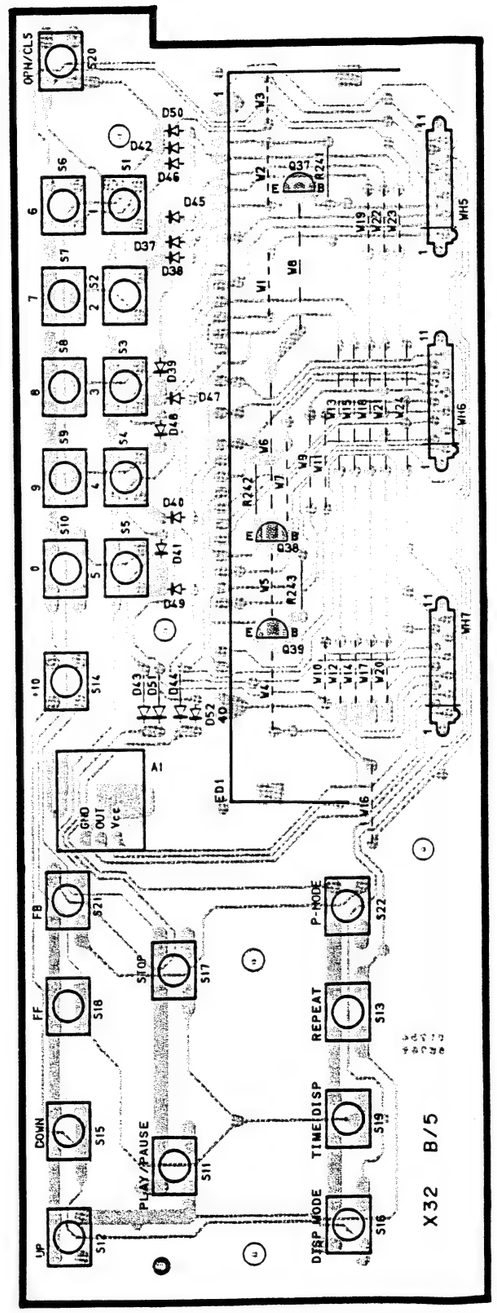
- RF signal and T.Error signal in test mode (Focusing ON). (Disc type 4)
- Adjust T.Error so that the waveform is symmetrical upper and lower or DC 0V. (VR1)

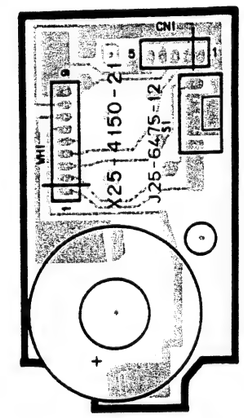


RF signal
AC couple

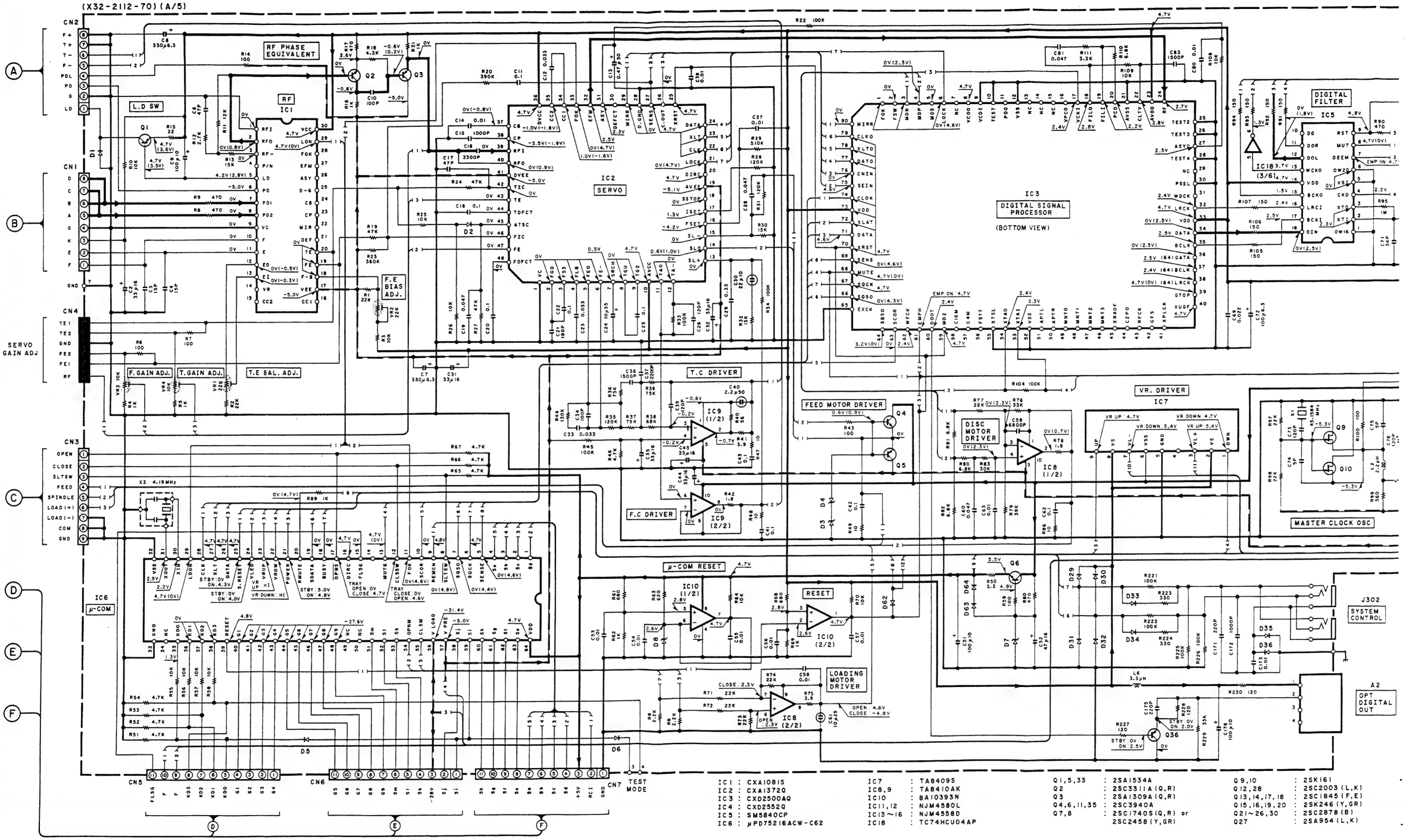
- RF signal in test mode (PLAY).
- Perform the tangential and focusing offset adjustments so that each of the center cross points are focused into one point on the display. The crossing points upper and lower the center shall also be displayed clearly.

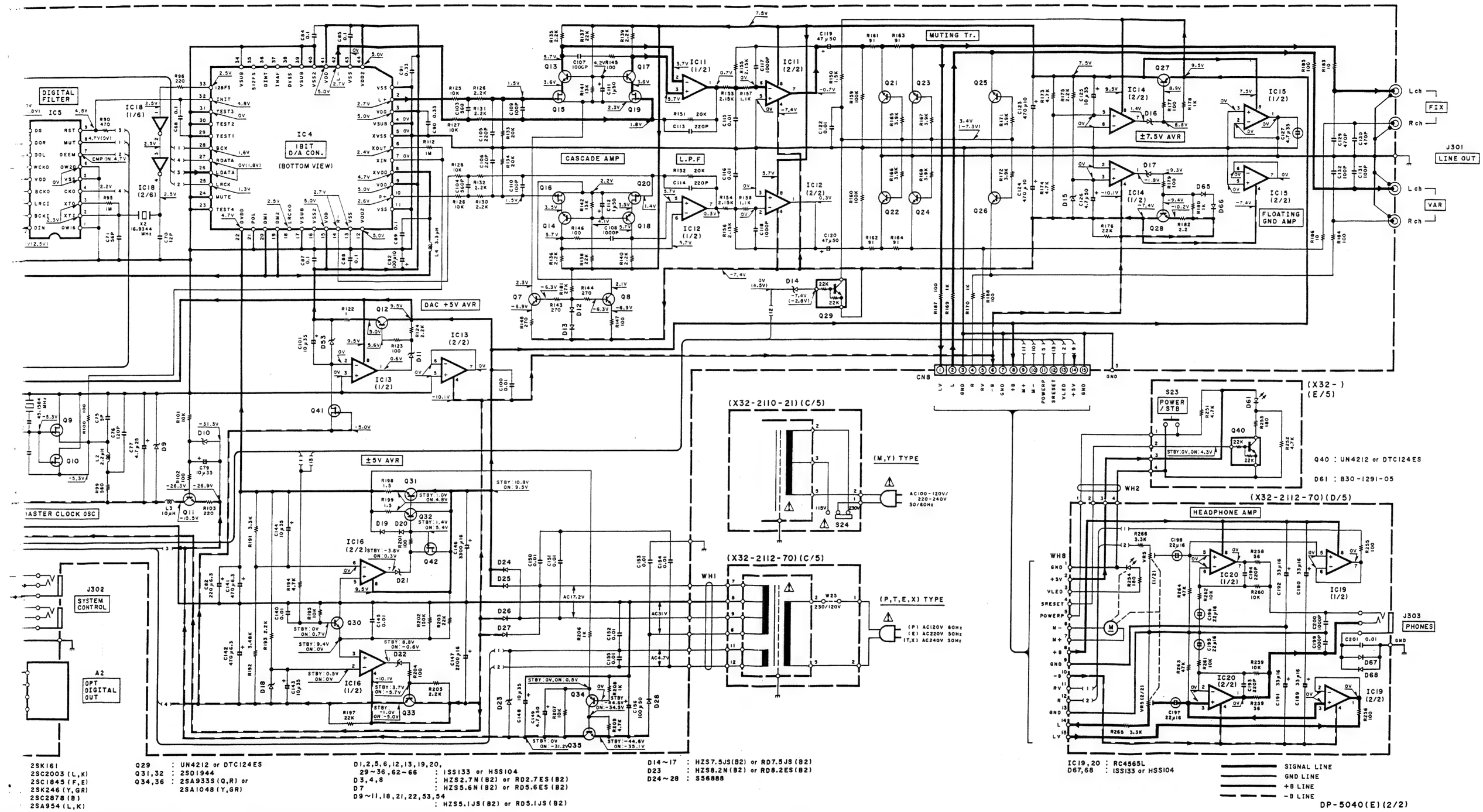
PC BOARD (COMPONENT SIDE VIEW)





Refer to the schematic diagram for the values of resistors and capacitors.


(X32-2112-70) (A/5)
CN2
CN1
CN4
CN3
CN5
CN6
CN7
TEST MODE
SERVO GAIN ADJ
L.D SW
RF PHASE EQUIVALENT
RF ICI
F.E BIAS ADJ.
F.GAIN ADJ.
T.GAIN ADJ.
T.E BAL. ADJ.
IC2 SERVO
T.C DRIVER
F.C DRIVER
FEED MOTOR DRIVER
LOADING MOTOR DRIVER
DISC MOTOR DRIVER
VR. DRIVER
IC7
IC3 DIGITAL SIGNAL PROCESSOR (BOTTOM VIEW)
DIGITAL FILTER
IC5
IC18
MASTER CLOCK OSC
IC6 μ-COM
μ-COM RESET
RESET
J302 SYSTEM CONTROL
A2 OPT DIGITAL OUT
X3 4.19MHz
IC1 : CXA1081S
IC2 : CXA1372Q
IC3 : CXD2500AQ
IC4 : CXD2552Q
IC5 : SM5840CP
IC6 : μPD75216ACW-C62
IC7 : TA8409S
IC8,9 : TA8410AK
IC10 : BA10393N
IC11,12 : NJM4580L
IC13~16 : NJM4558D
IC18 : TC74HCU04AP
Q1,5,33 : 2SA1534A
Q2 : 2SC3311A(Q,R)
Q3 : 2SA1309A(Q,R)
Q4,6,11,35 : 2SC3940A
Q7,8 : 2SC1740S(Q,R) or 2SC2458(Y,GR)
Q9,10 : 2SK161
Q12,28 : 2SC2003(L,K)
Q13,14,17,18 : 2SC1845(F,E)
Q15,16,19,20 : 2SK246(Y,GR)
Q21~26,30 : 2SC2878(B)
Q27 : 2SA954(L,K)



2SK161
2SC2003 (L,K)
2SC1845 (F,E)
2SK246 (Y,GR)
2SC2878 (B)
2SA954 (L,K)

Q29 : UN4212 or DTC124ES
Q31,32 : 2SD1944
Q34,36 : 2SA933S(Q,R) or 2SA1048(Y,GR)

D1,2,5,6,12,13,19,20, 29~36,62~66 : ISS133 or HSS104
D3,4,8 : HZS2.7N(B2) or RD2.7ES(B2)
D7 : HZS5.6N(B2) or RD5.6ES(B2)
D9~11,18,21,22,53,54 : HZS5.1JS(B2) or RD5.1JS(B2)

D14~17 : HZS7.5JS(B2) or RD7.5JS(B2)
D23 : HZS8.2N(B2) or RD8.2ES(B2)
D24~28 : 356888

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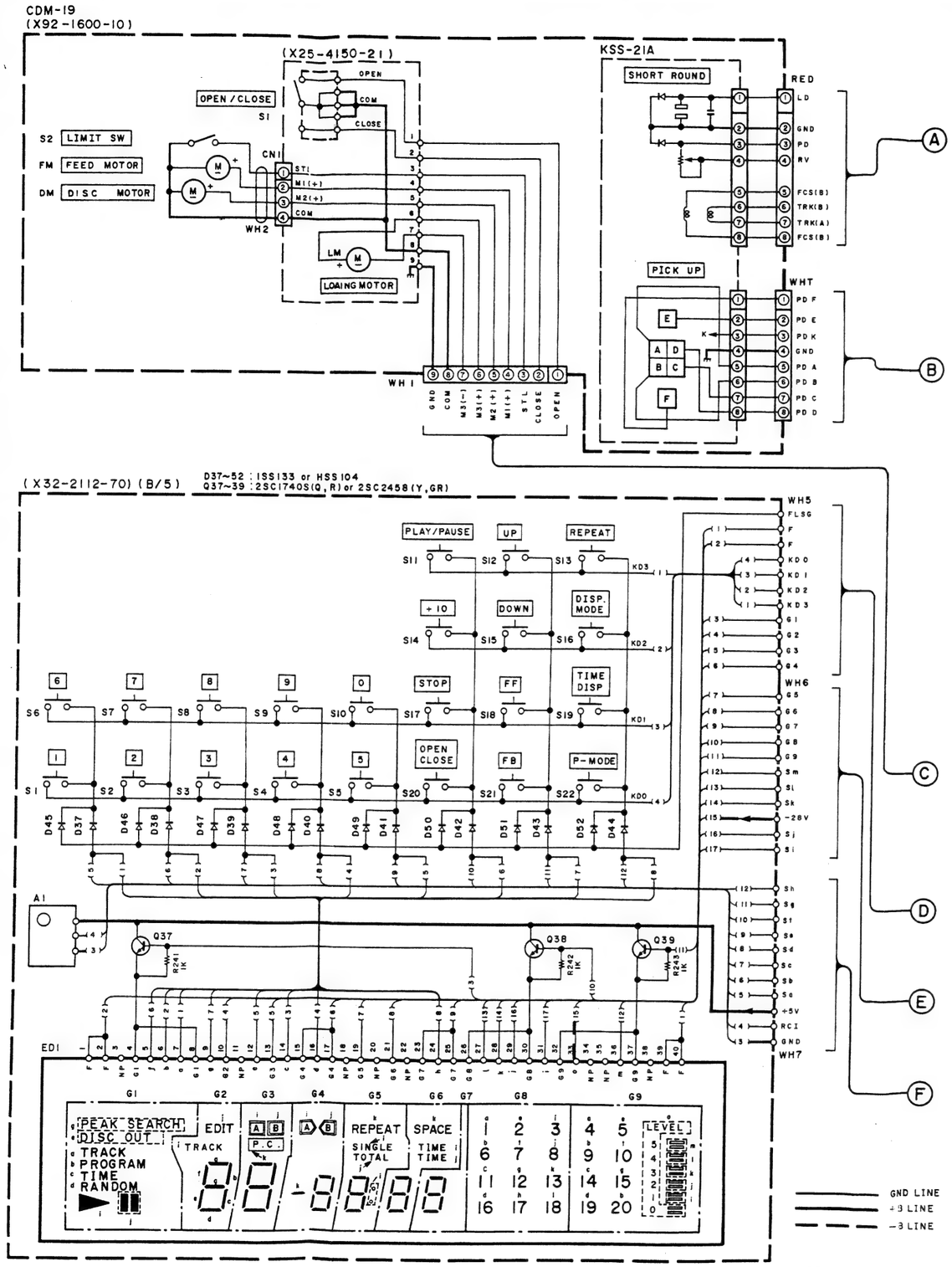
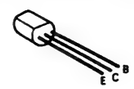
Y22-2711-00

DP-5040
KENWOOD

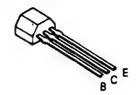


DP-5040(E)(1/2)

2SA1534A 2SA954
2SC1845 2SC2003
2SC2878 2SC3940A

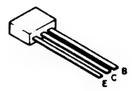


DTC124ES 2SA1048
2SA933S 2SC1740S
2SC2458

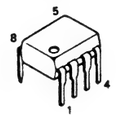


2SD1944

UN4212
2SA1309A
2SC3311A



NJM4558D



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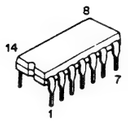
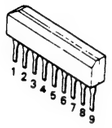
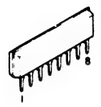


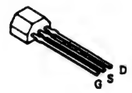
TA8409S



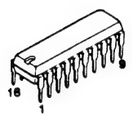
2SK246



2SK161

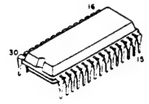


SM5840CP

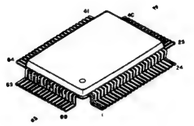


BA10393N

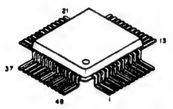
CXA1081S



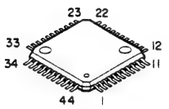
CXD2500AQ



CXA1372Q



CXD2552Q



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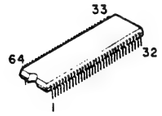
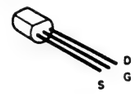
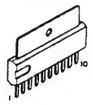


RC4565L



TA8410AK



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  DC voltage shows at STOP condition after pressing power sw. ( ) means PLAY condition.

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Y22-2711-00

DP-5040

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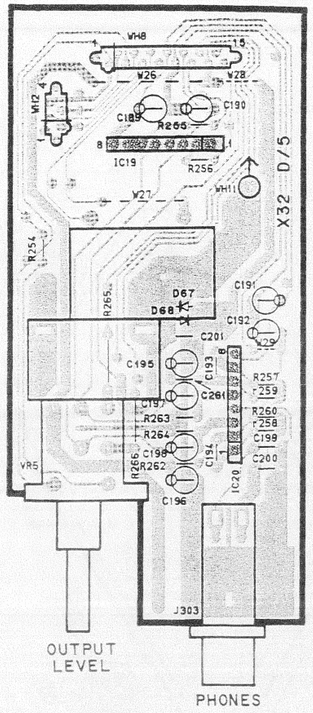
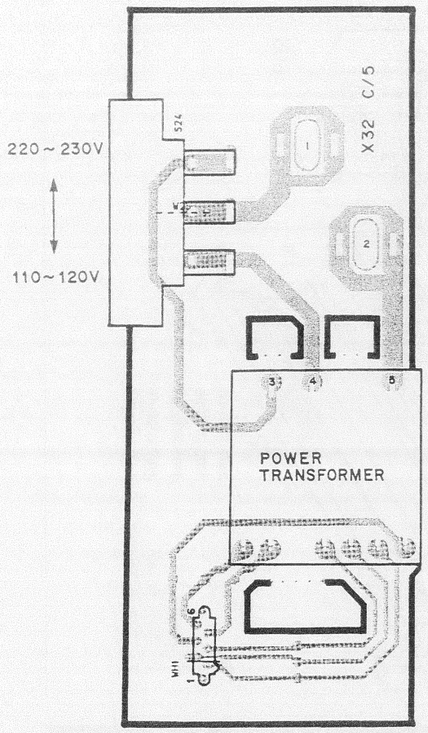
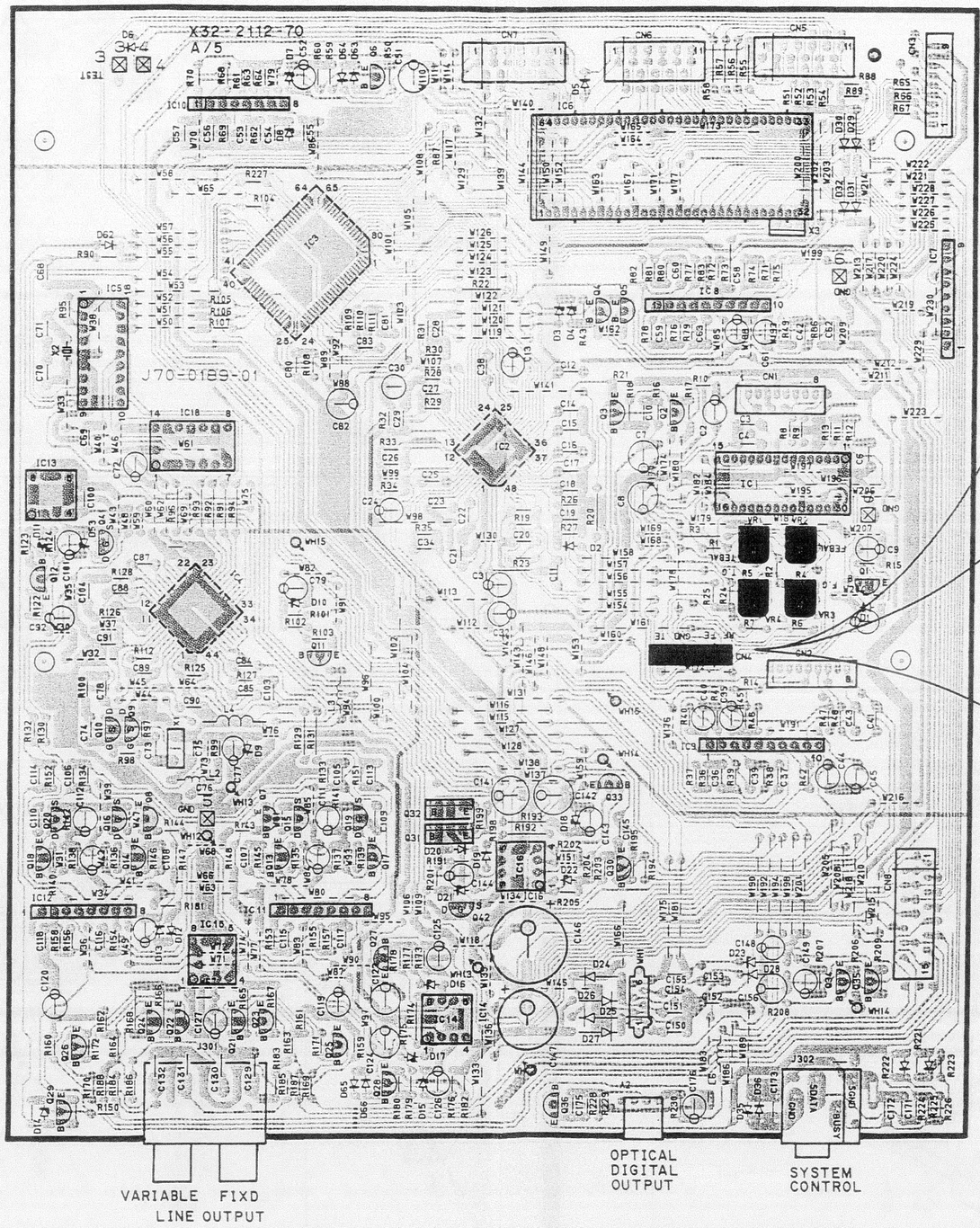
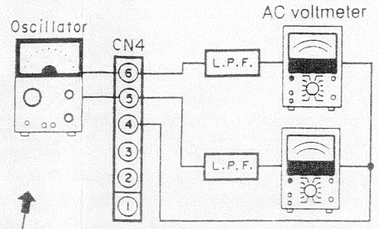
PC BOARD (COMPONENT SIDE VIEW)



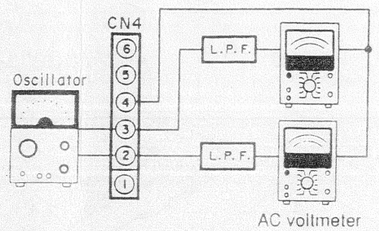




(e) Tracking gain : Two VTVMs should read the same value.

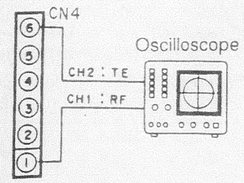


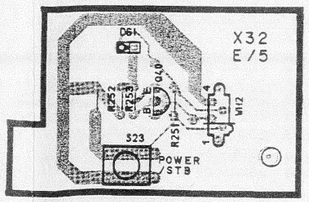
(e) Focus gain : Two VTVMs should read the same value.



(c) Tracking error : Symmetry between upper and lower or DC=0±0.05V

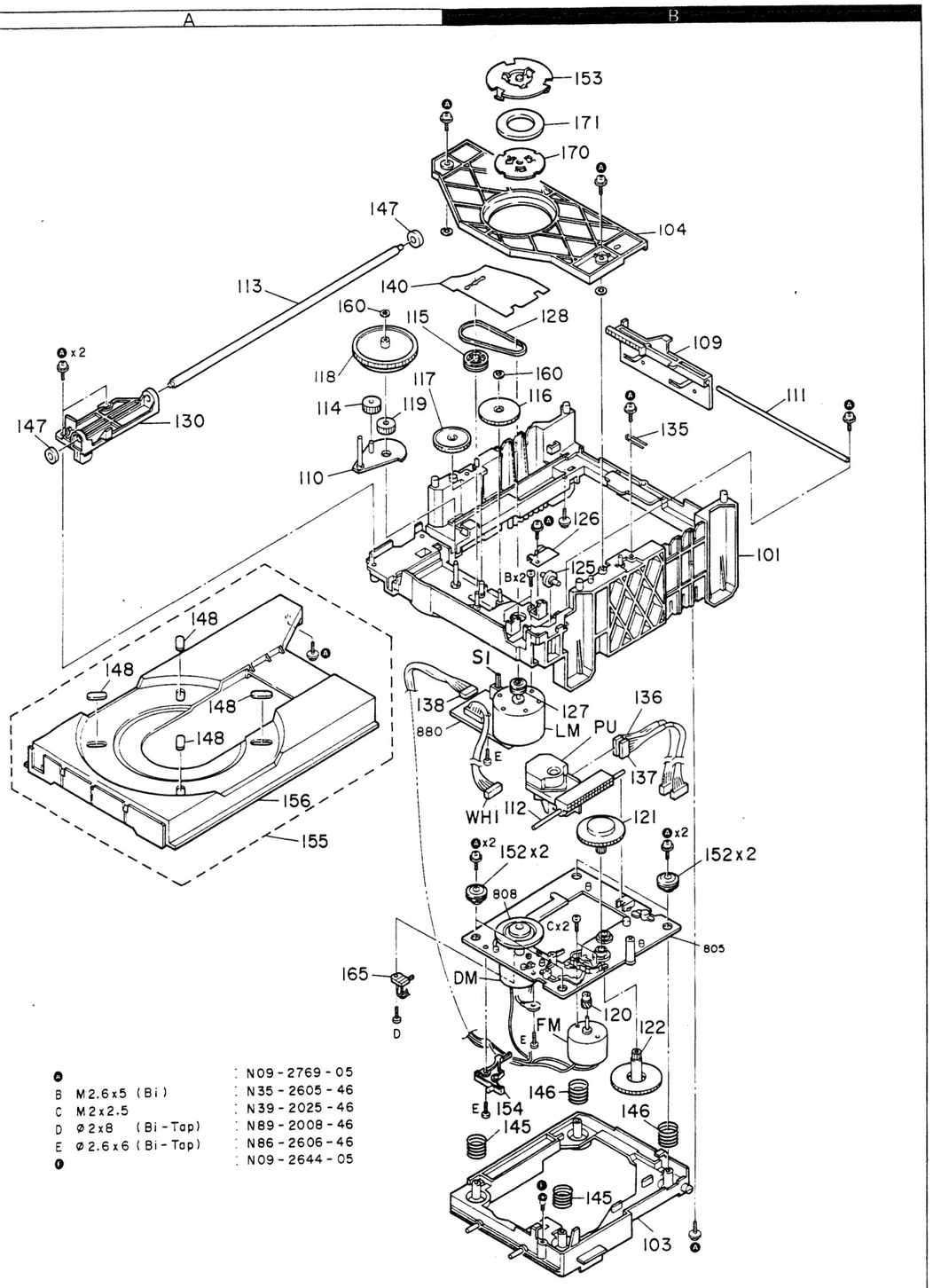
(d) Focus error : Optimum eye pattern





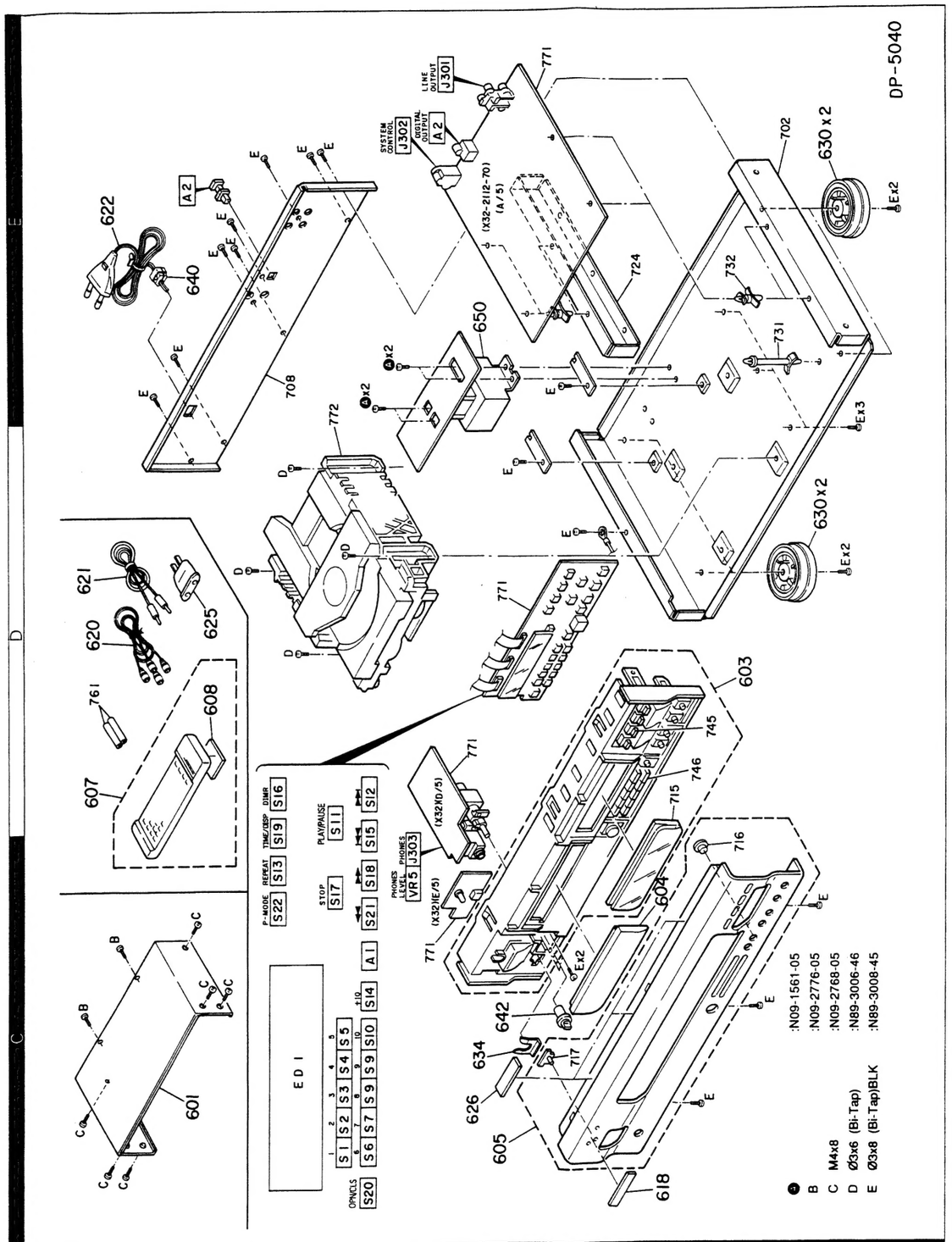
Refer to the schematic diagram for the values of resistors and capacitors.

EXPLODED VIEW (MECHANISM)



Parts with the exploded numbers larger than 700 are not supplied.

EXPLODED VIEW (UNIT)



Parts with the exploded numbers larger than 700 are not supplied.

× New Parts
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❶

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
			DP-5040			
601	1C		A01-1514-02	METALLIC CABINET		
603	2D	*	A22-1525-02	SUB PANEL ASSY		
604	2C	*	A29-0198-13	PANEL (TRAY)		
605	2C	*	A60-0148-02	PANEL ASSY		
607	1D	*	A70-0568-05	REMOTE CONTROLLER ASSY		
608	1D		A09-0078-08	BATTERY COVER		
618	2C		B43-0287-04	KENWOOD BADGE		
-			B46-0094-03	WARRANTY CARD	Y	
-			B46-0095-03	WARRANTY CARD	Y	
-			B46-0096-23	WARRANTY CARD	X	
-			B46-0121-13	WARRANTY CARD	P	
-			B46-0122-23	WARRANTY CARD	E	
-			B46-0143-13	WARRANTY CARD	T	
-		*	B60-0637-00	INSTRUCTION MANUAL (ENGLISH)		
-		*	B60-0638-00	INSTRUCTION MANUAL (FRENCH)	PE	
-		*	B60-0639-00	INSTRUCTION MANUAL (G,D,I)	E	
-		*	B60-0679-00	INSTRUCTION MANUAL (CHINESE)	M	
-		*	B60-0702-00	INSTRUCTION MANUAL (SPANISH)	M	
620	1D		E30-0505-05	AUDIO CORD (AUDIO)		
621	1D		E30-0977-05	CORD WITH PLUG (SYSTEM)		
⚠622	1E		E30-2273-05	AC POWER CORD	Y	
⚠622	1E		E30-2275-05	AC POWER CORD	X	
⚠622	1E		E30-2276-05	AC POWER CORD	T	
⚠622	1E		E30-2277-05	AC POWER CORD	ME	
⚠622	1E		E30-2423-05	AC POWER CORD	P	
⚠625	1D		E03-0115-05	AC PLUG ADAPTER	M	
626	1C		G11-0155-14	SOFT TAPE (40X9X2)		
-		*	H10-5248-02	POLYSTYRENE FOAMED FIXTURE		
-		*	H10-5249-02	POLYSTYRENE FOAMED FIXTURE		
-			H20-0554-04	PROTECTION COVER	M	
-			H25-0232-04	PROTECTION BAG (235X350X0.03)	PYMXE	
-			H25-0289-04	PROTECTION BAG (850X400X0.05)	PYXE	
-			H25-0651-04	PROTECTION BAG (0232)	T	
-		*	H25-0665-04	PROTECTION BAG (0289)	T	
-		*	H50-0178-04	ITEM CARTON CASE	PYXTE	
-		*	H50-0258-04	ITEM CARTON CASE	M	
630	2D,2E		J02-1002-05	FOOT		
634	1C		J21-3326-05	JACK MOUNTING HARDWARE		
⚠640	1E		J42-0083-05	POWER CORD BUSHING		
-			J11-0163-05	WIRE CLAMPER		
642	2C		K29-4031-04	KNOB (PHONES)		
⚠650	1E		L07-0172-05	POWER TRANSFORMER	P	
⚠650	1E		L07-0173-05	POWER TRANSFORMER	XTE	
⚠650	1E		L07-0174-05	POWER TRANSFORMER	YM	
			MECHANISM PCB (X25-4150-21)			
S1			S33-2062-05	LEVER SWITCH (OPEN/CLOSE)		
			CONTROL (X32-2112-70)			
D61			B30-1291-05	LED		

L:Scandinavia K:USA P:Canada
Y:PX(Far East, Hawaii) T:England E:Europe
Y:AAFES(Europe) X:Australia M:Other Areas

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❸

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C79			CE04LW1V100MCC	ELECTRO 10UF 35WV		
C80			CK45FF1H103Z	CERAMIC 0.010UF Z		
C81			CF92FV1H473J	MF 0.047UF J		
C82		*	C90-1911-05	ELECTRO 220UF 6.3WV		
C83			CF92FV1H152J	MF 1500PF J		
C84 ,85			CF92FV1H104J	MF 0.10UF J		
C87 -89			CF92FV1H104J	MF 0.10UF J		
C90 ,91			CF92FV1H334J	MF 0.33UF J		
C92			CE04LW1A101MCC	ELECTRO 100UF 10WV		
C100			CK45FF1H103Z	CERAMIC 0.010UF Z		
C101			CE04LW1V100MCC	ELECTRO 10UF 35WV		
C103,104		*	CF92FV1H102K	MF 1000PF K		
C105,106			CF92FV1H221K	MF 220PF K		
C107,108			CF92FV1H102J	MF 1000PF J		
C109,110			CF92FV1H681J	MF 680PF J		
C111,112		*	CE04LW1H1R0MCC	ELECTRO 1.0UF 50WV		
C113,114			CF92FV1H221K	MF 220PF K		
C115,116			CF92FV1H103J	MF 0.010UF J		
C117,118			CF92FV1H102J	MF 1000PF J		
C119,120			CE04LW1H470MCC	ELECTRO 47UF 50WV		
C123,124		*	CE04LW1A471MCC	ELECTRO 470UF 10WV		
C125			CE04LW1V100MCC	ELECTRO 10UF 35WV		
C126			CE04LW1H4R7MCC	ELECTRO 4.7UF 50WV		
C127		*	C90-1892-05	ELECTRO 4.7UF 35WV		
C129,130			CF92FV1H471J	MF 470PF J		
C131,132			CF92FV1H101K	MF 100PF K		
C140			CK45FF1H103Z	CERAMIC 0.010UF Z		
C141,142		*	CE04LW0J471MCC	ELECTRO 470UF 6.3WV		
C143,144			CE04LW1V100MCC	ELECTRO 10UF 35WV		
C145			CK45FF1H103Z	CERAMIC 0.010UF Z		
C146			CE04LW1C332MCC	ELECTRO 3300UF 16WV		
C147		*	CE04LW1C222MCC	ELECTRO 2200UF 16WV		
C148			CE04LW1V100MCC	ELECTRO 10UF 35WV		
C149			CE04LW1H4R7MCC	ELECTRO 4.7UF 50WV		
C150-155			CK45FF1H103Z	CERAMIC 0.010UF Z		
C156		*	CE04LW1H101MCC	ELECTRO 100UF 50WV		
C171			CC45FSL1H221J	CERAMIC 220PF J		
C172			CK45FB1H102K	CERAMIC 1000PF K		
C173			CK45FF1H103Z	CERAMIC 0.010UF Z		
C175			CF92FV1H221K	MF 220PF K		
C176			CE04LW1A101MCC	ELECTRO 100UF 10WV		
C189-192			CE04LW1C330MCC	ELECTRO 33UF 16WV		
C193,194			CF92FV1H221K	MF 220PF K		
C195-198			CE04LW1C220MCC	ELECTRO 22UF 16WV		
C199,200			CF92FV1H102J	MF 1000PF J		
C201			CK45FF1H103Z	CERAMIC 0.010UF Z		
J301	1E		E13-1404-05	PHONO JACK (OUTPUT)		
J302	1E		E11-0188-05	MINIATURE PHONE JACK (SYSTEM)		
J303	1C		E11-0199-05	PHONE JACK (HEAD PHONES)		
-			J19-3196-04	HOLDER		
L2			L40-2291-17	SMALL FIXED INDUCTOR		
L3			L40-1001-17	SMALL FIXED INDUCTOR(10UH,K)		
L4			L40-3391-17	SMALL FIXED INDUCTOR		

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C2			CE04LW1C330MCC	ELECTRO 33UF 16WV		
C3 ,4			CC45FSL1H150J	CERAMIC 15PF J		
C6			CC45FSL1H470J	CERAMIC 47PF J		
C7 ,8		*	CE04LW0J331MCC	ELECTRO 330UF 6.3WV		
C9			CE04LW1A101MCC	ELECTRO 100UF 10WV		
C10			CF92FV1H101K	MF 100PF K		
C11			CF92FV1H104J	MF 0.10UF J		
C12			CF92FV1H333J	MF 0.033UF J		
C13		*	CE04LW1HR47MCC	ELECTRO 0.47UF 50WV		
C14			CF92FV1H103J	MF 0.010UF J		
C15			CK45FB1H102K	CERAMIC 1000PF K		
C16			CF92FV1H682J	MF 6800PF J		
C17			CC45FSL1H470J	CERAMIC 47PF J		
C18			CF92FV1H104J	MF 0.10UF J		
C19			CF92FV1H473J	MF 0.047UF J		
C20			CF92FV1H104J	MF 0.10UF J		
C21			CC45FSL1H181J	CERAMIC 180PF J		
C22			CF92FV1H104J	MF 0.10UF J		
C23			CF92FV1H333J	MF 0.033UF J		
C24			CE04LW1V100MCC	ELECTRO 10UF 35WV		
C25			CF92FV1H104J	MF 0.10UF J		
C26			CC45FSL1H121J	CERAMIC 120PF J		
C27			CK45FF1H103Z	CERAMIC 0.010UF Z		
C28			CF92FV1H473J	MF 0.047UF J		
C29			CF92FV1H334J	MF 0.33UF J		
C30			C90-1353-05	NP-ELEC 22UF 25WV		
C31 ,32			CE04LW1C330MCC	ELECTRO 33UF 16WV		
C33			CF92FV1H823J	MF 0.082UF J		
C34			CC45FSL1H101J	CERAMIC 100PF J		
C35			CE04LW1C330MCC	ELECTRO 33UF 16WV		
C36			CF92FV1H152J	MF 1500PF J		
C37			CF92FV1H222J	MF 2200PF J		
C38			CK45FF1H103Z	CERAMIC 0.010UF Z		
C39			CC45FSL1H121J	CERAMIC 120PF J		
C40			C90-1350-05	NP-ELEC 2.2UF 50WV		
C41 -43			CF92FV1H104J	MF 0.10UF J		
C44 ,45		*	C90-1915-05	ELECTRO 33UF 16WV		
C51			CE04LW1A101MCC	ELECTRO 100UF 10WV		
C52		*	CE04LW1C470MCC	ELECTRO 47UF 16WV		
C53 -58			CK45FF1H103Z	CERAMIC 0.010UF Z		
C59			CF92FV1H682J	MF 6800PF J		
C60			CF92FV1H473J	MF 0.047UF J		
C61			C90-1332-05	NP-ELEC 10UF 50WV		
C62			CF92FV1H104J	MF 0.10UF J		
C63			CF92FV1H103J	MF 0.010UF J		
C68			CF92FV1H104J	MF 0.10UF J		
C69			CK45FF1H223Z	CERAMIC 0.022UF Z		
C70			CC45FSL1H120J	CERAMIC 12PF J		
C71			CC45FSL1H560J	CERAMIC 56PF J		
C72		*	C90-1910-05	ELECTRO 100UF 6.3WV		
C73			CF92FV1H121K	MF 120PF K		
C74 ,75			CC45FSL1H050C	CERAMIC 5.0PF C		
C76			CC45FSL1H121J	CERAMIC 120PF J		
C77			C90-1919-05	ELECTRO 4.7UF 25WV		
C78			CF92FV1H181K	MF 180PF K		

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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
L6			L40-3391-17	SMALL FIXED INDUCTOR		
X1		*	L77-2105-05	CRYSTAL RESONATOR (45.1584MHZ)		
X2			L77-1187-05	CRYSTAL RESONATOR (16.9344MHZ)		
X3			L78-0267-05	RESONATOR (4.19MHZ)		
R153-156			RN14BK2C2151F	RN 2.15K F 1/6W		
R157,158			RN14BK2C1101F	RN 1.10K F 1/6W		
R192			RN14BK2C3481F	RN 3.48K F 1/6W		
VR1 ,2			R12-3686-05	TRIMMING POT.(22K)		
VR3 ,4			R12-3685-05	TRIMMING POT.(10K)		
VR5	1C		R29-1006-05	POTENTIOMETER PHONES LEVEL		
S1 -23	1C,1D		S40-1064-05	PUSH SWITCH		
⚠S24			S31-2131-05	SLIDE SWITCH (POWER TYPE)	YM	
D1 ,2			HSS104	DIODE		
D1 ,2			1SS133	DIODE		
D3 ,4			HZS2.7N(B2)	ZENER DIODE		
D3 ,4			RD2.7ES(B2)	ZENER DIODE		
D5 ,6			HSS104	DIODE		
D5 ,6			1SS133	DIODE		
D7			HZS5.6N(B2)	ZENER DIODE		
D7			RD5.6ES(B2)	ZENER DIODE		
D8			HZS2.7N(B2)	ZENER DIODE		
D8			RD2.7ES(B2)	ZENER DIODE		
D9 -11			HZS5.1S(B2)	ZENER DIODE		
D9 -11			RD5.1JS(B2)	ZENER DIODE		
D12 ,13			HSS104	DIODE		
D12 ,13			1SS133	DIODE		
D15 -17			HZS7.5S(B2)	ZENER DIODE		
D15 -17			RD7.5JS(B2)	ZENER DIODE		
D18			HZS5.1S(B2)	ZENER DIODE		
D18			RD5.1JS(B2)	ZENER DIODE		
D19 ,20			HSS104	DIODE		
D19 ,20			1SS133	DIODE		
D21 ,22			HZS5.1S(B2)	ZENER DIODE		
D21 ,22			RD5.1JS(B2)	ZENER DIODE		
D23			HZS8.2N(B2)	ZENER DIODE		
D23			RD8.2ES(B2)	ZENER DIODE		
D24 -28			S5688B	DIODE		
D29 -52			HSS104	DIODE		
D29 -52			1SS133	DIODE		
D53 ,54			HZS5.1S(B2)	ZENER DIODE		
D53 ,54			RD5.1JS(B2)	ZENER DIODE		
D62 -68			HSS104	DIODE		
D62 -68			1SS133	DIODE		
ED1	1C		CF1090C	FLUORESCENT INDICATOR TUBE		
IC1			CXA1081S	IC(RF AMP)		
IC2			CXA1372Q	IC(CD RF SERVO)		
IC3			CXD2500AQ	IC(SIGNAL PROCESSOR)		
IC4			CXD2552Q	IC(D/A CONVERTER)		
IC5			SM5840CP	IC(DIGITAL FILTER)		
IC6			UPD75216ACW-C62	IC(MICROPROCESSOR)		
IC7			TA8409S	IC(MOTOR CONTROL)		
IC8 ,9			TA8410AK	IC(POWER OP AMP)		
IC10			BA10393N	IC(DUAL COMPARATOR)		

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PARTS LIST DP-5040

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DP-5040

PARTS LIST

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
119	1A		D13-0892-04	GEAR		
120	3B		D13-0894-05	GEAR (FM)		
121	2B		D13-0895-05	GEAR (INTERMEDIATE)		
122	3B		D13-0896-05	GEAR (FEED)		
125	2B		D14-0324-04	ROLLER		
126	2B		D14-0325-04	ROLLER ASSY		
127	2B		D15-0295-04	MOTOR PULLEY		
128	1B	*	D16-0309-03	BELT		
130	1A		D23-0267-03	RETAINER		
135	1B		E23-0343-04	TERMINAL		
136	2B		E35-0262-05	WIRING HARNESS		
137	2B		E35-0288-05	WIRING HARNESS		
138	2A	*	E31-7868-15	WIRING HARNESS (5P)		
140	1A	*	F19-1027-04	BLIND PLATE		
145	3B	*	G01-3326-14	COMPRESSION SPRING (FRONT)		
146	3B	*	G01-3327-14	COMPRESSION SPRING (REAR)		
147	1A	*	G11-2038-04	CUSHION		
148	2A	*	G16-0766-04	SHEET		
152	2B	*	J02-1058-15	INSULATOR		
153	1B		J11-0168-03	CLAMPER		
154	3B	*	J19-2335-05	BRACKET		
155	2A	*	J99-0088-13	TRAY ASSY		
156	2A	*	J99-0089-01	TRAY		
160	1A,1B		N19-0366-04	FLAT WASHER		
165	3A		S33-1022-05	LEVER SWITCH		
170	1B		T50-1055-04	YOKE		
171	1B		T99-0503-15	MAGNET		
DM	3B		A11-0733-05	SUB CHASSIS ASSY		
PM	3B		T42-0532-05	DC MOTOR (FEED)		
LM	2B		T42-0530-05	DC MOTOR (LOADING)		
PU	2B		T25-0011-05	OPTICAL PICKUP HEAD		

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* New Parts.
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
IC11,12			NJM4580L	IC		
IC15-16			NJM4558D	IC(OP AMP X2)		
IC18			TC74HCU04AP	IC(CMOS INVERTER)		
IC19,20			RC4565L	IC(OP AMP)		
Q1			2SA1534A	TRANSISTOR		
Q2			2SC3311A(Q,R)	TRANSISTOR		
Q3			2SA1309A(Q,R)	TRANSISTOR		
Q4			2SC3940A	TRANSISTOR		
Q5			2SA1534A	TRANSISTOR		
Q6			2SC3940A	TRANSISTOR		
Q7 ,8			2SC1740S(Q,R)	TRANSISTOR		
Q7 ,8			2SC2458(Y,GR)	TRANSISTOR		
Q9 ,10			2SK161	FET		
Q11			2SC3940A	TRANSISTOR		
Q12			2SC2003(L,K)	TRANSISTOR		
Q13 ,14			2SC1845(F,E)	TRANSISTOR		
Q15 ,16			2SK246(Y,GR)	FET		
Q17 ,18			2SC1845(F,E)	TRANSISTOR		
Q19 ,20			2SK246(Y,GR)	FET		
Q21 -26			2SC2878(B)	TRANSISTOR		
Q27			2SA954(L,K)	TRANSISTOR		
Q28			2SC2003(L,K)	TRANSISTOR		
Q29			DTC124ES	DIGITAL TRANSISTOR		
Q29			UN4212	TRANSISTOR		
Q30			2SC2878(B)	TRANSISTOR		
Q31 ,32			2SD1944	TRANSISTOR		
Q33			2SA1534A	TRANSISTOR		
Q34			2SA1048(Y,GR)	TRANSISTOR		
Q34			2SA933S(Q,R)	TRANSISTOR		
Q35			2SC3940A	TRANSISTOR		
Q36			2SA1048(Y,GR)	TRANSISTOR		
Q36			2SA933S(Q,R)	TRANSISTOR		
Q37 -39			2SC1740S(Q,R)	TRANSISTOR		
Q37 -39			2SC2458(Y,GR)	TRANSISTOR		
Q40			DTC124ES	DIGITAL TRANSISTOR		
Q40			UN4212	TRANSISTOR		
Q41 ,42			2SK246(Y,GR)	FET		
A1	1C		W02-0975-05	ELECTRIC CIRCUIT MODULE(REMOTE)		
A2	1E		W02-1036-05	TRANSMITTING ASSY (OPTICAL)		
MECHANISM (X92-1600-10)						
101	2B	*	A10-2798-22	CHASSIS ASSY		
103	3B	*	A11-0695-15	SUB CHASSIS (FRAME)		
104	1B		A11-0686-03	SUB CHASSIS (CLAMP)		
109	1B		D10-2479-03	SLIDER		
110	2A		D10-2481-04	ARM ASSY		
111	1B		D10-2489-04	ROD (SLIDER)		
112	2B	*	D10-2490-04	ROD (DISC UP)		
113	1A	*	D10-2491-04	ROD (RETAINER)		
114	1A		D13-0744-04	GEAR (PULLEY)		
115	1A		D13-0779-04	GEAR (INTERMEDIATE)		
116	1B		D13-0780-04	GEAR (IDLER)		
117	1A		D13-0890-04	GEAR (MAIN)		
118	1A		D13-0891-03			

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DP-5040

SPECIFICATIONS

[Format]
System ..... Compact disc digital audio system
Laser ..... Semiconductor laser
Number of channels ..... 2 channels
Playing rotation ..... 200rpm~500rpm (CLV)

[D/A convertors]
D/A conversion 1bit
Over sampling 8fs (352.8kHz)

[Audio]
Frequency response ..... 2Hz~20kHz
Signal to noise ratio ..... More than 110dB
Dynamic range ..... More than 97dB
Total harmonic distortion
..... Less than 0.0025% (at 1kHz)
Channel separation ..... More than 103dB (at 1kHz)
Wow & Flutter ..... Unmeasurable Limit
Output level / Impedance
Fixed ..... 2V / 1kΩ
Variable ..... 0~2V / 2kΩ
Digital output
Optical
..... -15dBm~-21dBm (Wave length 660nm)
Headphone output 20mW (16Ω)

[General]
Power consumption 14W
Dimensions ..... W : 440mm (17-5 / 16")
H : 118mm (4-5 / 8")
D : 314mm (12-3 / 8")
Weight (Net) 4.2kg (90.2lb)

Note:
KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice

Note :
Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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